Leary
09/402405

FILE 'REGISTRY' ENTERED AT 12:04:05 ON 05 MAY 2000
E CARBOXYPEPTIDASE A/CN 5
L1 22 SEA ABB=ON PLU=ON CARBOXYPEPTIDASE A ?/CN

FILE 'CAPLUS' ENTERED AT 12:04:33 ON 05 MAY 2000
L2 2521 SEA ABB=ON PLU=ON L1 OR (CARBOXYPEPTIDASE OR CARBOXY PEPTIDASE)(W)A
L3 16 SEA ABB=ON PLU=ON L2 AND PANCREATIT?

APP

L3 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:184507 CAPLUS
DOCUMENT NUMBER: 131:41303
TITLE: Determination of the activity of **carboxypeptidase A** in the blood of healthy human adults
AUTHOR(S): Stewart, Jonathan D.; Gilvarg, Charles
CORPORATE SOURCE: Lewis Thomas Laboratory, Department of Molecular Biology, Princeton University, Princeton, NJ, 08544, USA
SOURCE: Clin. Chim. Acta (1999), 281(1-2), 19-28
CODEN: CCATAR; ISSN: 0009-8981
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A sensitive and highly specific assay, utilizing N-acetyl-L-phenylalanyl-L-3-thiaphenylalanine as substrate, was designed to make possible the direct detn. of **carboxypeptidase A** (I) in human blood serum or plasma. The measurement of I activity in the serum of 108 blood donors established the basal concn. for healthy human adults to be 0.068 .+-. 0.028 U/L (x .+-. 1 S.D.). This was equiv. to 0.34 .mu.g/L of I. Such an extremely low baseline provides for a substantial dynamic range over which to assess pancreatic pathol. such as acute **pancreatitis**. Previous claims in the literature for an 11-fold higher baseline must be reexamd. in view of the failure of the investigators to take into account the ability of the proenzyme form of **carboxypeptidase A**, which does occur in serum, to attack their substrates.

L3 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:682557 CAPLUS
DOCUMENT NUMBER: 129:312828
TITLE: Method of detecting procarboxypeptidase A and **carboxypeptidase A** levels or other enzymes in biological fluids using specific inhibitor
INVENTOR(S): Gilvarg, Charles
PATENT ASSIGNEE(S): Princeton University, USA
SOURCE: PCT Int. Appl., 24 pp.
Searcher : Shears 308-4994

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9845471	A1	19981015	WO 1998-US6615	19980410
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9868818	A1	19981030	AU 1998-68818	19980410
EP 975794	A1	20000202	EP 1998-914468	19980410
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			US 1997-41835	19970410
			US 1997-55495	19970812
			WO 1998-US6615	19980410

AB Methods of enhancing sensitivity and specificity of an assay measuring enzymic activity in a sample by measuring enzymic activity in the sample in the presence and absence of a specific inhibitor of the enzymic activity are provided. Methods of measuring **carboxypeptidase A** levels and total **carboxypeptidase A** levels, wherein procarboxypeptidase A is converted to **carboxypeptidase A** by addn. of clostripain, in a biol. fluid with a **carboxypeptidase A** substrate, specificity of which is enhanced by addn. of a **carboxypeptidase A** -specific inhibitor are also provided. In addn., methods of diagnosing acute **pancreatitis** by measurement of **carboxypeptidase A** levels and pancreatic cancer by measurement of total **carboxypeptidase A** levels are also provided. **Carboxypeptidase A** (CPA) was detd. spectrophotometrically in human serum using N-acetyl-phenylalanyl-3-thiaphenylalanine (substrate), Ellman's reagent, and .alpha.-benzylsuccinic acid (inhibitor). Serum levels of CPA greater than 0.20 U/L are considered elevated and are indicative of **pancreatitis**.

L3 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:121764 CAPLUS
DOCUMENT NUMBER: 128:190979
TITLE: Biochemical indicators of acute **pancreatitis**
AUTHOR(S): Kazmierczak, Steven C.
CORPORATE SOURCE: Department of Pathology, East Carolina University School of Medicine, Greenville, NC, USA

Searcher : Shears 308-4994

SOURCE: Pathol. Lab. Med. (1997), 2(Clinical Pathology of Pancreatic Disorders), 75-124
CODEN: PLMEFF
PUBLISHER: Humana Press Inc.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review, with 199 refs., on the diagnostic utility of both the commonly used and more esoteric indicators of acute **pancreatitis**. The analytes most frequently employed for the diagnosis of acute **pancreatitis** include amylase and the pancreatic isoenzyme of amylase and lipase. The markers infrequently used, but that may provide good diagnostic and(or) prognostic information, include trypsin, phospholipase A, **carboxypeptidase A**, and lipase isoforms. Some key issues related to the correct interpretation of these tests in certain pathophysiol. states such as renal failure are discussed. In, addn., the utility of some of these studies in the investigation of the etiol. of an attack of acute **pancreatitis** is also reviewed.

L3 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1994:572854 CAPLUS
DOCUMENT NUMBER: 121:172854
TITLE: Influence of soybean diet on alcohol-induced pancreatic damage in rats
AUTHOR(S): Siegmund, E.; Jonas, L.; Dummler, W.
CORPORATE SOURCE: Med. Fak., Univ. Rostock, Rostock, D-18057, Germany
SOURCE: Z. Gastroenterol. (1994), 32(2), 81-6
CODEN: ZGASAX; ISSN: 0044-2771
DOCUMENT TYPE: Journal
LANGUAGE: German

AB Alc.-induced hypersecretion probably contributes to chronic alc. **pancreatitis**. Feeding of raw soybean flour or soybean trypsin inhibitor also stimulates protein secretion of the pancreas. Therefore, whether or not the pancreatic damage is increased by addnl. feeding of raw soybean flour in rats fed 20% EtOH was tested. After 11 mo, the morphol. lesions of the pancreas into 7 stages of severity calcd. by a discriminating procedure was classified. To characterize the secretory capacity of the pancreas, the outputs of lipase, phospholipase A, .alpha.-amylase, **carboxypeptidase A**, chymotrypsin, and bicarbonate was measured. Compared with the alc.-fed animals, the rats fed with alc. and soya exhibited a lower av. degree of morphol. damage in the pancreas. Hypertrophy and hyperplasia of the parenchyma and accumulation of secretory products within the acinar cells were main features, while some sep. regions of the pancreas showed intraductal secretion ppts. as well as plugs, which were sometimes assocd. with atrophy of acinar cells. Feeding with soybean diet grossly reduced the alc.-induced enzyme

hypersecretion. In the early phase of alc.-induced pancreatic damage, long-term soybean flour diet thus reduces morphol. lesions and hypersecretion of the rat pancreas, whereas protein synthesis in the acinar cells appears increased. However, the pptn. of secretory products on ductal epithelium, the increased formation of plugs, and the more frequent acinar atrophies suggest the development of significant tissue injuries.

L3 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1991:75485 CAPLUS
DOCUMENT NUMBER: 114:75485
TITLE: Intracellular activation of digestive zymogens in rat pancreatic acini. Stimulation by high doses of cholecystokinin
AUTHOR(S): Leach, Steven D.; Modlin, Irvin M.; Scheele, George A.; Gorelick, Fred S.
CORPORATE SOURCE: Sch. Med., Yale Univ., New Haven, CT, 06510, USA
SOURCE: J. Clin. Invest. (1991), 87(1), 362-6
CODEN: JCINAO; ISSN: 0021-9738
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The mechanism by which digestive zymogens become activated during acute **pancreatitis** remains poorly understood. Given the ability for cholecystokinin (CCK) to induce **pancreatitis** in vivo, the effects of high dose CCK on prepns. of isolated pancreatic acini were examd. Using an immunol. technique for the detection of zymogen activation, CCK was found to stimulate the conversion of procarboxypeptidase A1 to a 35-kD form having the same net charge and electrophoretic mobility as purified recombinant carboxypeptidase A1. This enhanced conversion was proportional to the dose of CCK (maximal at 100 nM), and time dependent. CCK also produced changes in the electrophoretic mobility of procarboxypeptidase B and chymotrypsinogen 2 immunoreactivity, consistent with activation of these zymogens. These events were detectable only within acinar cell pellets and not in the incubation medium, suggesting an intracellular site of conversion. The conversion of procarboxypeptidase A1 to its active form was inhibited by pretreatment with the weak base chloroquine (40 .mu.M) and the protonophore monensin (10 .mu.M). This conversion was also inhibited by pretreatment with the serine protease inhibitor benzamidine (10 mM) but not the cysteine protease inhibitor E 64 (100 .mu.M). Apparently, high dose CCK stimulates the intracellular activation of digestive zymogens within isolated pancreatic acini. This event appears to require an acidic subcellular compartment and serine protease activity.

L3 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1989:130938 CAPLUS
DOCUMENT NUMBER: 110:130938

TITLE: Measuring **carboxypeptidase A** activity with a centrifugal analyzer: analytical and clinical considerations
AUTHOR(S): Kazmierczak, Steven C.; Van Lente, Frederick
CORPORATE SOURCE: Dep. Biochem., Cleveland Clin. Found., Cleveland, OH, 44195, USA
SOURCE: Clin. Chem. (Winston-Salem, N. C.) (1989), 35(2), 251-5
CODEN: CLCHAU; ISSN: 0009-9147
DOCUMENT TYPE: Journal
LANGUAGE: English

AB This adaptation of a com. available kit for automated measurement of **carboxypeptidase A** (CPA; EC 3.4.17.1) activity in serum with the Cobas Bio centrifugal analyzer extends the linear range to an activity concn. of 82 U/L. Results obtained by the described method correlated closely (r = 0.98) with those by the manual kit method. The ref. interval for 150 apparently normal individuals was 0.12-0.91 U/L. Total CVs of the method were 4.0-13.1%. Bilirubin and glucose decreased the CPA activity in serum by as much as 98% and 26%, resp. Substantial CPA activity was found in pancreatic tissue, with little activity in intestinal tissue. CPA activity was not as widely distributed in extra-pancreatic tissues as were amylase and lipase activities. Peak activities of CPA, amylase, and lipase in the sera of patients with acute **pancreatitis** were significantly correlated (r = 0.45-0.78, P .ltoreq. 0.05-0.01). The optimized diagnostic efficiency of CPA for acute **pancreatitis** was 0.85 at a cutoff value of 5 U/L. Amylase and lipase exhibited similar optimized efficiencies, and parallel testing did not significantly improve diagnostic accuracy. Thus, automated anal. for CPA activity, even in the absence of interferences, does not add to the diagnostic information provided by the widely available assays for amylase and lipase activity.

DUP

L3 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1987:419764 CAPLUS
DOCUMENT NUMBER: 107:19764
TITLE: Determination of **carboxypeptidase A** using N-acetyl-phenylalanyl-3-thiaphenylalanine as substrate: application to a direct serum assay
AUTHOR(S): Brown, Karen S.; Kingsbury, William D.; Hall, Norman M.; Dunn, George L.; Gilvarg, Charles
CORPORATE SOURCE: Dep. Biochem. Sci., Princeton Univ., Princeton, NJ, 08544, USA
SOURCE: Anal. Biochem. (1987), 161(1), 219-25
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal
LANGUAGE: English

Searcher : Shears 308-4994

AB N-Acetyl-L-phenylalanyl-L-3-thiaphenylalanine was shown to be a substrate for **carboxypeptidase A**. Hydrolysis of the compd. obeys Michaelis-Menten kinetics with a Km of 0.22 mM and a catalytic rate const. (kcat) of 6720 min-1 at 22.degree.. A colorimetric assay, employing Ellman's reagent to detect thiophenol released upon cleavage of the peptide, was developed. The assay can be used for the direct detn. of **carboxypeptidase A** in serum in **pancreatitis**.

L3 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1985:129804 CAPLUS
DOCUMENT NUMBER: 102:129804
TITLE: Studies on double albumin. III. Relation between double albumin in pleural effusion and proteolytic enzymes of pancreas
AUTHOR(S): Senju, Osamu; Uzawa, Ryuichi; Takagi, Yasushi; Gomi, Kunihide; Ishii, Toru; Hatta, Yoshio
CORPORATE SOURCE: Sch. Med., Showa Univ., Tokyo, 142, Japan
SOURCE: Rinsho Byori (1984), 32(10), 1143-7
CODEN: RBYOAI; ISSN: 0047-1860
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB The mechanism of appearance of paralbumin in pleural effusion was examd. in 2 cases of chronic recurrent **pancreatitis**. Involvement of elastase I and **carboxypeptidases A** and B in the appearance was indicated.

L3 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1984:31234 CAPLUS
DOCUMENT NUMBER: 100:31234
TITLE: Determination of pancreatic **carboxypeptidase A** in human blood serum
AUTHOR(S): Roth, Marc; Rohner, Adrien
CORPORATE SOURCE: Lab. Cent. Chim. Clin., Hop. Cantonal Univ., Geneva, 1211/4, Switz.
SOURCE: Clin. Chim. Acta (1983), 135(1), 65-71
CODEN: CCATAR; ISSN: 0009-8981
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A method is described for the assay of pancreatic **carboxypeptidase A** (I) in blood serum. It uses carbobenzoxy-Gly-Phe as substrate and fluorometric detn. of the released phenylalanine in an amino acid analyzer, which yields a measure of free I. In addn., the sum (free I + pro-I) can be detd. on a 2nd portion preincubated with trypsin, which converts the proenzyme to the active form. Detns. made in 15 healthy individuals showed the presence of a measurable concn. of free I. In acute **pancreatitis**, total I was elevated. An increase in

circulating pro-I was obsd. in some cases. Data from 46 patients showed a good correlation between total I, lipase, and immunoreactive trypsin. The differential detn. of pro-I and free I provides an interesting new tool for the diagnosis of pancreatic disorders.

L3 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1983:418490 CAPLUS
DOCUMENT NUMBER: 99:18490
TITLE: Human serum procarboxypeptidase A
AUTHOR(S): Peterson, Lynn M.; Holmquist, Barton
CORPORATE SOURCE: Brigham and Women's Hosp., Harvard Med. Sch., Boston, MA, 02115, USA
SOURCE: Biochemistry (1983), 22(13), 3077-82
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Zymogen activation is an important biochem. control process and has important physiol. and pathol. implications. Both procarboxypeptidase A (I), the enzyme precursor, and **carboxypeptidase A** (II), have been measured simultaneously in blood serum by using an affinity resin and the synthetic peptide substrate, N-(2-furanacryloyl)-L-phenylalanyl-L-phenylalanine. Serum I was activated by trypsin, chymotrypsin, plasmin, subtilisin, or urokinase, but not by thrombin or enteropeptidase. The mol. wt. of the precursor was .apprx.5000-10,000 daltons greater than that of the active product. Both I and II increased in serum in the course of **pancreatitis** but the degree of activation could vary up to 2000-fold, independent of the amt. of I present. The existence of this pancreatic proteolytic precursor in blood serum opens new avenues for the investigation of zymogen activation and its regulation.

L3 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1982:611078 CAPLUS
DOCUMENT NUMBER: 97:211078
TITLE: A unique activity assay for **carboxypeptidase A** in human serum
AUTHOR(S): Peterson, Lynn M.; Holmquist, Barton; Bethune, J. L.
CORPORATE SOURCE: Harvard Med. Sch., Brigham and Women's Hosp., Boston, MA, 02115, USA
SOURCE: Anal. Biochem. (1982), 125(2), 420-6
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Detn. of **carboxypeptidase A** in human serum is

AB Serum **carboxypeptidase A** activity (CPase) was measured using carbonaphthoxy-1-phenylalanine as the substrate in various types of diabetes mellitus and the clin. implications of CPase in relation to pancreatic disorders were discussed. A very low level of CPase was obsd. in diabetics complicated with pancreatic cancer or chronic **pancreatitis** (pancreatic diabetics). In growth-onset type and maturity-onset type diabetics (primary diabetics) no large decrease was found in CPase activity if they were under control. Very low CPase activity was frequently found in primary diabetics with duration longer than 15 yr. Abnormality of pancreatic uptake of selenomethionine-75Se and(or) some degrees of dysfunction in pancreozymin-secretion test were found in diabetics with low CPase level, esp. in pancreatic diabetics. These results suggest that the detn. of CPase is a useful screening method for detecting pancreatic disorders in patients with diabetes mellitus.

L3 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1977:531831 CAPLUS
DOCUMENT NUMBER: 87:131831
TITLE: Studies on **carboxypeptidase A** in the experimental and clinical pancreatic disorder
AUTHOR(S): Kinoshita, Haruo
CORPORATE SOURCE: First Dep. Surg., Osaka City Univ. Med. Sch., Osaka, Japan
SOURCE: Osaka Shiritsu Daigaku Igaku Zasshi (1976), 25(7-9), 373-87
CODEN: OSDIAF
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB In normal dogs, **carboxypeptidase A** (CPase A) in pancreatic juice was 2328 units. Pancreozymin-secretin stimulation resulted in an increase in total amt. of CPase A roughly paralleling the secretion of amylase in pancreatic juice. No change was detected in the level of serum CPase A. In totally pancreatectomized dogs, serum CPase A decreased rapidly and .apprx.10 days after pancreatectomy serum CPase A reached the lowest levels. In dogs with acute **pancreatitis** serum CPase A increased only slightly while serum amylase increased remarkably. In dogs in which common bile ducts were ligated, serum CPase A decreased slightly within 14 days after ligation. Serum CPase A in patients with pancreatic cancer usually were low, esp. in cases of diffuse pancreatic cancer. In cases of pancreatic body and tail cancer, half of these cases showed normal serum CPase A levels. It is suggested that the pattern of CPase A secretion was similar to that of amylase in pancreatic juice during pancreozymin-secretin stimulation and serum CPase A decreased in exocrine pancreatic dysfunction. The measurement of serum CPase A will be a useful

method for detecting pancreatic disorders.

L3 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1976:590306 CAPLUS
DOCUMENT NUMBER: 85:190306
TITLE: Intraductal activation of zymogens of chymotrypsin, **carboxypeptidase A** and elastase in patients with **pancreatitis**
AUTHOR(S): Rinderknecht, H.; Renner, I. G.
CORPORATE SOURCE: Dep. Med., VA Hosp., Sepulveda, Calif., USA
SOURCE: IRCS Med. Sci.: Libr. Compend. (1976), 4(10), 463-463A
CODEN: IRLCDZ
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Pancreatic juice was obtained from a patient with **pancreatitis** after secretion stimulation by i.v. secretin followed by i.v. cholecystokinin. Unusually large amts. of secretory proteins and free chymotrypsin in the presence of near-normal levels of trypsin inhibitor were found. No free chymotrypsin was found in pancreatic juice from a normal control and control juice contained less trypsin inhibitor. Intraductal activation of zymogens of elastase and **carboxypeptidase A** in the presence of excess trypsin inhibitor was also found.

L3 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1976:521196 CAPLUS
DOCUMENT NUMBER: 85:121196
TITLE: Bisalbuminemia in **pancreatitis**: structural modifications of human serum albumin by proteolytic enzymes of the pancreas
AUTHOR(S): Rousseaux, J.; Debeaumont, D.; Scharfman, A.; Pommelet, P.; Dautrevaux, M.; Biserte, G.
CORPORATE SOURCE: Lab. Chim. Biol., Fac. Med., Lille, Fr.
SOURCE: Clin. Chim. Acta (1976), 71(1), 35-46
CODEN: CCATAR
DOCUMENT TYPE: Journal
LANGUAGE: French
AB Bisalbuminemia in **pancreatitis** is a transient abnormality related to the presence, in electrophoresis of the serum, of fast-moving albumin; this abnormal form is also found, in larger amts., in the ascitic or pleural effusions of the patients. Expts. reported here indicate clearly that the fast albumin can be produced by a degrdn. of normal serum albumin by the proteolytic enzymes of the pancreas (chymotrypsin or elastase in assocn. with **carboxypeptidases A** and B). Structural anal. of the isolated fast albumin of the patients shows that the C-terminal

end of the mol. is different from normal serum albumin, which can be understood by a limited enzymic degrdn. by chymotrypsin or elastase followed by the action of carboxypeptidases. The discovery of bisalbuminemia in a patient affected by **pancreatitis** suggests the presence of an ascitic or pleural effusion and of a pancreatic pseudo-cyst with a fistula emerging in the effusion.

(FILE 'CAPLUS' ENTERED AT 12:04:33 ON 05 MAY 2000)
L4 2526 SEA ABB=ON PLU=ON L1 OR (CARBOXYPEPTIDASE OR CARBOXY PEPTIDASE)(W)A OR CPA(S)(CARBOXYPEPTIDASE OR CARBOXY PEPTIDASE)
L5 16 S L4 AND PANCREATIT?
L6 0 S L5 NOT L3

(FILE 'MEDLINE, BIOSIS, JICST-EPLUS, WPIDS' ENTERED AT 12:08:25 ON 05 MAY 2000)
L7 30 S L5
L8 24 DUP REM L7 (6 DUPLICATES REMOVED)

L8 ANSWER 1 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1999:236201 BIOSIS
DOCUMENT NUMBER: PREV199900236201
TITLE: Determination of the activity of **carboxypeptidase A** in the blood of healthy human adults.
AUTHOR(S): Stewart, Jonathan D.; Gilvarg, Charles (1)
CORPORATE SOURCE: (1) Department of Molecular Biology, Lewis Thomas Laboratory, Princeton University, Princeton, NJ, 08544 USA
SOURCE: Clinica Chimica Acta, (March, 1999) Vol. 281, No. 1-2, pp. 19-28.
ISSN: 0009-8981.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English
AB A sensitive and highly specific assay, utilizing N-acetyl-Phe-3-thiaPhe as substrate, has been designed to make possible the direct determination of **carboxypeptidase A** in human serum or plasma. Measurement of the enzyme's activity in the serum of 108 blood donors has established the basal concentration for healthy human adults to be 0.068+-0.028 U/l (x+-1 S.D.). This is equivalent to 0.34 mug/l of **carboxypeptidase A**. Such an extremely low baseline provides for a substantial dynamic range over which to assess pancreatic pathology. Previous claims in the literature for an 11 fold higher baseline have to be reexamined in view of the failure of the investigators to take into account the ability of the proenzyme form of **carboxypeptidase A**, which does occur in serum, to attack their substrates.

Searcher : Shears 308-4994

L8 ANSWER 2 OF 24 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1999-095223 [08] WPIDS
DOC. NO. CPI: C1999-027970
TITLE: Method for enhancing sensitivity and specificity of assay measuring enzymatic activity - comprises measuring enzymatic activity in sample in presence and absence of specific inhibitor.
DERWENT CLASS: B04 D16
INVENTOR(S): GILVARG, C
PATENT ASSIGNEE(S): (UYPR-N) UNIV PRINCETON
COUNTRY COUNT: 23
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9845471	A1	19981015	(199908)*	EN	24
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: AU CA JP US					
AU 9868818	A	19981030	(199911)		
EP 975794	A1	20000202	(200011)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9845471	A1	WO 1998-US6615	19980410
AU 9868818	A	AU 1998-68818	19980410
EP 975794	A1	EP 1998-914468	19980410
		WO 1998-US6615	19980410

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9868818	A	Based on	WO 9845471
EP 975794	A1	Based on	WO 9845471

PRIORITY APPLN. INFO: US 1997-55495 19970812; US 1997-41835 19970410
AN 1999-095223 [08] WPIDS
AB WO 9845471 A UPAB: 19990224
A method (A) for enhancing sensitivity and specificity of an assay measuring enzymatic activity (EA) in a sample comprises measuring EA in the presence and absence of a specific inhibitor. Also claimed are: (1) a method (B) for measuring **carboxypeptidase A** (**CPA**) levels in a biological fluid comprising:
(a) contacting a biological fluid with a **CPA** substrate in

the presence and absence of **CPA**-specific inhibitor, and (b) measuring changes in optical density (OD) resulting from the hydrolysis of the **CPA** substrate; and (2) a method (C) of measuring total **CPA** levels in a biological fluid comprising: (a) converting any pro-**CPA** in a biological fluid to **CPA** by addition of clostripain; (b) contacting the biological fluid with a **CPA** substrate in the presence or absence of a **CPA**-specific inhibitor, and (c) measuring changes in (OD) resulting from the hydrolysis of the **CPA** substrate.

USE - (B) is used to diagnose acute **pancreatitis** in patients. (C) is used to diagnose early stage pancreatic cancer in patients (all claimed).

ADVANTAGE - The method provides enhanced sensitivity and specificity compared with prior art enzyme assays.

Dwg.0/0

L8 ANSWER 3 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1998:289819 BIOSIS
DOCUMENT NUMBER: PREV199800289819
TITLE: **Carboxypeptidase A** activity in pancreatic cancer and acute **pancreatitis**.
AUTHOR(S): Shamamian, P. (1); Marcus, S. (1); Deutsch, E. (1); Maldonado, T.; Liu, A.; Stewart, J.; Eng, K.; Gilvarg, C. (1)
CORPORATE SOURCE: (1) Dep. Surg., NYU Sch. Med., New York, NY USA
SOURCE: Gastroenterology, (April 15, 1998) Vol. 114, No. 4 PART 2, pp. A1425.
Meeting Info.: Digestive Diseases Week and the 99th Annual Meeting of the American Gastroenterological Association New Orleans, Louisiana, USA May 16-22, 1998 American Association for the Study of Liver Diseases
. ISSN: 0016-5085.
DOCUMENT TYPE: Conference
LANGUAGE: English

L8 ANSWER 4 OF 24 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 1999032637 MEDLINE
DOCUMENT NUMBER: 99032637
TITLE: Zymogen proteolysis within the pancreatic acinar cell is associated with cellular injury.
AUTHOR: Grady T; Mah'Moud M; Otani T; Rhee S; Lerch M M; Gorelick F S
CORPORATE SOURCE: Department of Surgery, Veterans Affairs Connecticut Healthcare System, West Haven, Connecticut 06516, USA.
SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY, (1998 Nov) 275 (5 Pt 1) G1010-7.

AUTHOR(S): Maldonado, T.; Shamamian, P.; Gilvarg, C.
CORPORATE SOURCE: S. A. Localio Surgical Res. Lab., NYU Med. Cent., New York, NY USA
SOURCE: Gastroenterology, (1997) Vol. 112, No. 4 SUPPL., pp. A1457.
Meeting Info.: Digestive Disease Week and the 97th Annual Meeting of the American Gastroenterological Association Washington, D.C., USA May 11-14, 1997
ISSN: 0016-5085.
DOCUMENT TYPE: Conference; Abstract
LANGUAGE: English

L8 ANSWER 7 OF 24 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 94219140 MEDLINE
DOCUMENT NUMBER: 94219140
TITLE: [Modification of alcohol-induced pancreatic damage in rats by soybean diet].
Beeinflussung der alkoholinduzierten Pankreatopathie bei Ratten durch Sojabohnendiat.
AUTHOR: Siegmund E; Jonas L; Dummler W
CORPORATE SOURCE: Institut fur Klinische Chemie und Pathobiochemie, Universitat Rostock.
SOURCE: ZEITSCHRIFT FUR GASTROENTEROLOGIE, (1994 Feb) 32 (2) 81-6.
Journal code: XU1. ISSN: 0044-2771.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199407

AB Alcohol-induced hypersecretion probably contributes to chronic alcoholic **pancreatitis**. Feeding of raw soybean flour or soybean trypsin inhibitor also stimulates protein secretion of the pancreas. Therefore, we tested whether or not the pancreatic damage is increased by additional feeding of raw soybean flour in rats fed 20% ethanol. After 11 months, we classified the morphological lesions of the pancreas into seven stages of severity calculated by means of a discriminating procedure. In order to characterize the secretory capacity of the pancreas, we measured the outputs of lipase, phospholipase, A, alpha-amylase, **carboxypeptidase A**, chymotrypsin, and bicarbonate. Compared with the alcohol-fed animals, the rats fed with alcohol and soya exhibited a lower average degree of morphological damage in the pancreas. Hypertrophy and hyperplasia of the parenchyma and accumulation of secretory products within the acinar cells were main features. On the other hand, some separate regions of the pancreas showed intraductal secretion precipitates as well as plugs, which were sometimes associated with atrophy of acinar cells. Feeding with soybean diet grossly reduced the alcohol-induced enzyme

hypersecretion. In the early phase of alcohol-induced pancreatic damage, long-term soybean flour diet thus reduces morphological lesions and hypersecretion of the rat pancreas, whereas protein synthesis in the acinar cells appears increased. However, the precipitation of secretory products on ductal epithelium, the increased formation of plugs, and the more frequent acinar atrophies suggest the development of significant tissue injuries.

L8 ANSWER 8 OF 24 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 92343195 MEDLINE
DOCUMENT NUMBER: 92343195
TITLE: [Correlation between acinar cell fat accumulation and secretory capacity of the rat pancreas in the early stage of alcohol-induced pancreatopathy]. Zusammenhang zwischen Azinuszellverfettung und sekretorischer Kapazitat des Rattenpankreas im Fruhstadium einer alkoholinduzierten Pankreatopathie.
AUTHOR: Siegmund E; Jonas L; Dummler W; Kading U; Kesting S
CORPORATE SOURCE: Institut fur Pathobiochemie, Universitat Rostock.
SOURCE: ZEITSCHRIFT FUR GASTROENTEROLOGIE, (1992 Jun) 30 (6) 385-90.
Journal code: XU1. ISSN: 0044-2771.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199210

AB In patients exhibiting chronic alcohol abuse, the accumulation of fat droplets in pancreatic acinar cells, as well as changes in pancreatic secretion, can be interpreted as early signs of pancreatic damage. Using rats, (the animals were fed for 9 +/- 1 months with a solution of 20% v/v ethanol, combined with either a normal or a fat enhanced diet) we tested whether or not these symptoms are related both to each other and to morphological lesions of the tissue. Based on six separate histological criteria, the lesions were classified into five stages of severity. In order to characterize the secretory capacity of the pancreas, we measured the outputs of lipase, alpha-amylase, trypsin, chymotrypsin, **carboxypeptidase A**, elastase, and phospholipase A.
Compared with the control group, we found that the alcohol-fed animals exhibited a significantly higher degree of morphological damage to the pancreas, as well as an increased frequency of fat accumulation in the acinar cells, and, with the exception of alpha-amylase, a rise in the level of enzyme secretion. In the animals exhibiting the highest degree of tissue damage, however, both fat accumulation and hypersecretion appeared to be diminished. This diminution could possibly be interpreted as the first sign of chronic **pancreatitis**. Increased consumption of fat did not change either the level of fat accumulation in the acinar cells, or

the level of pancreatic secretion. Within the group of alcohol-fed rats, the most pronounced levels of hypersection were found in animals exhibiting cellular fat accumulation. However, the secretion levels of the alcohol-fed animals exhibiting no such fat accumulation did not differ significantly from that of the control group. Therefore, a relationship appears to exist in rats between fat accumulation in acinar cells and the level of pancreatic secretion.

L8 ANSWER 9 OF 24 MEDLINE
ACCESSION NUMBER: 91086472 MEDLINE
DOCUMENT NUMBER: 91086472
TITLE: Intracellular activation of digestive zymogens in rat pancreatic acini. Stimulation by high doses of cholecystokinin.
AUTHOR: Leach S D; Modlin I M; Scheele G A; Gorelick F S
CORPORATE SOURCE: Department of Surgery, West Haven Veterans Administration Medical Center, New Haven, Connecticut 06516.
CONTRACT NUMBER: DK-08216-03 (NIDDK)
DK-18532 (NIDDK)
SOURCE: JOURNAL OF CLINICAL INVESTIGATION, (1991 Jan) 87 (1) 362-6.
Journal code: HS7. ISSN: 0021-9738.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals; Cancer Journals
ENTRY MONTH: 199104

AB The mechanism by which digestive zymogens become activated during acute **pancreatitis** remains poorly understood. Given the ability for cholecystokinin (CCK) to induce **pancreatitis** in vivo, the effects of high dose CCK on preparations of isolated pancreatic acini were examined. Using an immunologic technique for the detection of zymogen activation, CCK was found to stimulate the conversion of procarboxypeptidase A1 to a 35-kD form having the same net charge and electrophoretic mobility as purified recombinant carboxypeptidase A1. This enhanced conversion was proportional to the dose of CCK (maximal at 100 nM), and time dependent. CCK also produced changes in the electrophoretic mobility of procarboxypeptidase B and chymotrypsinogen 2 immunoreactivity, consistent with activation of these zymogens. These events were detectable only within acinar cell pellets and not in the incubation medium, suggesting an intracellular site of conversion. The conversion of procarboxypeptidase A1 to its active form was inhibited by pretreatment with the weak base chloroquine (40 microM) and the protonophore monensin (10 microM). This conversion was also inhibited by pretreatment with the serine protease inhibitor

benzamidine (10 mM) but not the cysteine protease inhibitor E64 (100 microM). The results suggest that high dose CCK stimulates the intracellular activation of digestive zymogens within isolated pancreatic acini. This event appears to require an acidic subcellular compartment and serine protease activity.

L8 ANSWER 10 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1990:397117 BIOSIS
DOCUMENT NUMBER: BR39:68078
TITLE: EFFECT OF CHRONIC RENAL INSUFFICIENCY ON PANCREATIC ENZYME ACTIVITIES IN SERUM.
AUTHOR(S): KAZMIERCZAK S C; VAN LENTE F; CASTELLANI W J
CORPORATE SOURCE: ECU SCH. MED., GREENVILLE, N.C.
SOURCE: 42ND NATIONAL MEETING OF THE AMERICAN ASSOCIATION FOR CLINICAL CHEMISTRY AND THE 34TH ANNUAL MEETING OF THE CANADIAN SOCIETY OF CLINICAL CHEMISTS HELD AT THE XIV INTERNATIONAL CONGRESS OF CLINICAL CHEMISTRY, SAN FRANCISCO, CALIFORNIA, USA, JULY 22-26, 1990. CLIN CHEM, (1990) 36 (6), 1122.
CODEN: CLCHAU. ISSN: 0009-9147.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L8 ANSWER 11 OF 24 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 89119786 MEDLINE
DOCUMENT NUMBER: 89119786
TITLE: Measuring **carboxypeptidase A** activity with a centrifugal analyzer: analytical and clinical considerations.
AUTHOR: Kazmierczak S C; Van Lente F
CORPORATE SOURCE: Department of Biochemistry, Cleveland Clinic Foundation, OH 44195.
SOURCE: CLINICAL CHEMISTRY, (1989 Feb) 35 (2) 251-5.
Journal code: DBZ. ISSN: 0009-9147.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 198905
AB This adaptation of a commercially available kit for automated measurement of **carboxypeptidase A** (**CPA** ; EC 3.4.17.1) activity in serum with the Cobas Bio centrifugal analyzer extends the linear range to an activity concentration of 82 U/L. Results obtained by the described method correlated closely (r = 0.98) with those by the manual kit method. The reference interval for 150 apparently normal individuals was 0.12-0.91 U/L. Total CVs of the method ranged from 4.0% to 13.1%. Bilirubin and glucose decreased the **CPA** activity in serum by as much as 98% and

26%, respectively. Substantial **CPA** activity was found in pancreatic tissue, with little activity in intestinal tissue. **CPA** activity was not as widely distributed in extra-pancreatic tissues as were amylase and lipase activities. Peak activities of **CPA**, amylase, and lipase in the sera of patients with acute **pancreatitis** were significantly correlated (r = 0.45 to 0.78, P less than 0.05-0.01). The optimized diagnostic efficiency of **CPA** for acute **pancreatitis** was 0.85 at a cutoff value of 5 U/L. Amylase and lipase exhibited similar optimized efficiencies, and parallel testing did not significantly improve diagnostic accuracy. We conclude that automated analysis for **CPA** activity, even in the absence of interferences, does not add to the diagnostic information provided by the widely available assays for amylase and lipase activity.

L8 ANSWER 12 OF 24 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1988-050042 [07] WPIDS
CROSS REFERENCE: 1990-267895 [35]
DOC. NO. NON-CPI: N1988-037927
DOC. NO. CPI: C1988-022207
TITLE: Diagnosis of pancreatic disease - by assaying body fluid for activation peptide(s) of pancreatic zymogen(s) specifically cleaved by proteolysis during activation.
DERWENT CLASS: B04 S03
INVENTOR(S): AUSTEN, B M; HERMON-TAYLOR, J; HERMONTAYL, J
PATENT ASSIGNEE(S): (BIOS-N) BIOSCIENCE INT INC; (HERM-I) HERMON-TAYLOR J; (SGEO-N) ST GEORGES HOSP MED
COUNTRY COUNT: 24
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 8801059	A	19880211	(198807)*	EN	36
W: AU DK FI JP KR NO					
EP 258995	A	19880309	(198810)	EN	
R: AT BE CH DE ES FR GB GR IT LI LU NL SE					
ZA 8705562	A	19880208	(198818)		
AU 8777526	A	19880224	(198820)		
NO 8801347	A	19880530	(198827)		
DK 8801669	A	19880325	(198840)		
FI 8801447	A	19880325	(198902)		
JP 01502132	W	19890727	(198936)		
PT 86603	A	19891004	(198945)		
EP 258995	B1	19940413	(199415)	EN	36
R: AT BE CH DE ES FR GB GR IT LI LU NL SE					
DE 3789584	G	19940519	(199421)		
US 5356781	A	19941018	(199441)		26

IE 64356	B	19950728 (199538)	
JP 2744001	B2	19980428 (199822)	20
CA 1340790	C	19991019 (200009)	EN

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 8801059	A		WO 1987-GB532	19870727
EP 258995	A		EP 1987-306613	19870727
ZA 8705562	A		ZA 1987-5562	19870728
JP 01502132	W		JP 1987-504471	19870727
EP 258995	B1		EP 1987-306613	19870727
DE 3789584	G		DE 1987-3789584	19870727
			EP 1987-306613	19870727
US 5356781	A	CIP of	US 1987-3728	19870116
		CIP of	US 1987-78737	19870728
		Cont of	US 1988-145857	19880120
			US 1991-721234	19910626
IE 64356	B		IE 1987-2014	19870724
JP 2744001	B2		JP 1987-504471	19870727
			WO 1987-GB532	19870727
CA 1340790	C		CA 1987-543209	19870728

FILING DETAILS:

PATENT NO	KIND		PATENT NO
DE 3789584	G	Based on	EP 258995
US 5356781	A	CIP of	US 4948723
JP 2744001	B2	Previous Publ.	JP 01502132
		Based on	WO 8801059

PRIORITY APPLN. INFO: GB 1986-18333 19860728; US 1987-3728 19870116

AN 1988-050042 [07] WPIDS

CR 1990-267895 [35]

AB WO 8801059AN 1 UPAB: 20000218

A method of diagnosing pancreatic disease in a patient comprises assaying a sample of the patient's body fluid for the presence or absence of peptides which are the activation peptides (PAP) of pancreatic zymogens specifically cleaved by proteolysis during activation. Also claimed is the pentapeptide D4K having a revealing label directly attached to one of its constituent amino acids. Also claimed are the peptides DSGISPR, APGPR, GOPTYPPYVTR and PPYVTR having a revealing label directly attached to one of the constituent amino acids. Also claimed is a C-terminally directed antibody having specificity for PAP.

USE - The assay provides a precise method for recognising and

PUB. COUNTRY: Netherlands
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198404

AB A method has been designed for the assay of pancreatic **carboxypeptidase A** in blood serum. It uses Z-Gly-Phe as the substrate and fluorimetric determination of the released phenylalanine in an amino acid analyser, which yields a measure of free **carboxypeptidase A**. In addition, the sum (free **carboxypeptidase A** + procarboxypeptidase A) can be determined on a second portion preincubated with trypsin, which converts the proenzyme to the active form. Determinations made in fifteen healthy individuals showed the presence of a measurable concentration of free **carboxypeptidase A**. In acute **pancreatitis**, total **carboxypeptidase A** is raised. An increase in circulating proenzyme is observed in some cases. Data from 46 patients show a good correlation between total **carboxypeptidase A**, lipase and immunoreactive trypsin. Differential determination of procarboxypeptidase A and free **carboxypeptidase A** provides an interesting new tool for the diagnosis of pancreatic disorders.

L8 ANSWER 17 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1983:250626 BIOSIS
DOCUMENT NUMBER: BA76:8118
TITLE: A UNIQUE ACTIVITY ASSAY FOR **CARBOXY PEPTIDASE A** IN HUMAN SERUM.
AUTHOR(S): PETERSON L M; HOLMQUIST B; BETHUNE J L
CORPORATE SOURCE: CENT. BIOCHEM. BIOPHYS. SCI. MED., DEP. SURG., HARV. MED. SCH., BRIGHAM AND WOMEN'S HOSP., BOSTON, MASS. 02115.
SOURCE: ANAL BIOCHEM, (1982) 125 (2), 420-426.
CODEN: ANBCA2. ISSN: 0003-2697.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Measurement of **carboxypeptidase A**, one of the pancreatic proteolytic enzymes, in human serum is made possible by a combination of affinity chromatography to isolate and concentrate the enzyme followed by monitoring activity spectrophotometrically with a high-turnover peptide substrate. Concentrations of enzyme in the ng/ml range can be determined with high precision and reliability. Initial clinical application of this method demonstrates no detectable activity in serum from normal individuals, but the enzyme is present in the sera of individuals with **pancreatitis**.

L8 ANSWER 18 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS

ACCESSION NUMBER: 1978:102548 BIOSIS
DOCUMENT NUMBER: BR15:46048
TITLE: STUDIES ON THE DIAGNOSTIC SIGNIFICANCE OF SERUM **CARBOXY PEPTIDASE A** ACTIVITY IN DIABETICS PART 2.
AUTHOR(S): WADA M; SEKI J; FUJII S; TANAKA K; YAMAGATA S
SOURCE: Jpn. J. Med., (1977 (RECD 1978)) 16 (2), 167.
CODEN: JJMDAT. ISSN: 0021-5120.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: Unavailable

L8 ANSWER 19 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1978:176129 BIOSIS
DOCUMENT NUMBER: BA65:63129
TITLE: CLINICAL STUDIES ON ZINC METABOLISM IN PANCREATIC JUICE BY PANCREOZYMIN SECRETIN TEST.
AUTHOR(S): MIZUKOSHI M
CORPORATE SOURCE: THIRD DEP. INTERN. MED., HOKKAIDO UNIV. SCH. MED., SAPPORO, HOKKAIDO, JPN.
SOURCE: HOKKAIDO J MED SCI, (1977) 52 (2), 125-142.
CODEN: HOIZAK. ISSN: 0367-6102.
FILE SEGMENT: BA; OLD
LANGUAGE: Japanese
AB Of 67 subjects examined by the P-Se test, 49 patients suffered from chronic **pancreatitis**, pancreatic cyst, chronic hepatitis, liver cirrhosis, cholelithiasis, cholecystitis, liver carcinoma or carcinoma of bile duct or pancreatic neoplasms. The Zn concentrations were measured by atomic absorption spectrochemical analysis. To remove Zn derived from RBC, white blood cells and duodenal mucosa, the samples were initially centrifuged and the supernatants examined. Zn levels in duodenal juice were not related to serum Zn levels, but were correlated with protein content, amylase and **carboxypeptidase A** in the duodenal juice. In the patients with chronic **pancreatitis**, total Zn output in the duodenal juice was decreased and paralleled with pancreatic dysfunction. Secretion volume, bicarbonate concentration and amylase activity were examined. In all patients, Zn concentrations in the duodenal juice were similar to levels in controls having normal P-S tests. In the patients with hepatic dysfunction, Zn concentrations were markedly decreased with a slight reduction of Zn output in duodenal juice in each period of aspiration after pancreozymin stimulation. The determination of Zn levels in pancreatic secretions was clinically useful to diagnose pancreas and liver dysfunctions.

L8 ANSWER 20 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1978:102522 BIOSIS
DOCUMENT NUMBER: BR15:46022

TITLE: STUDIES ON THE DIAGNOSTIC SIGNIFICANCE OF SERUM **CARBOXY PEPTIDASE A** ACTIVITY IN DIABETES MELLITUS.
AUTHOR(S): FUJII S; YAMAGATA S; TANAKA K; WADA M; AKAI T
SOURCE: Jpn. J. Med., (1977 (RECD 1978)) 16 (2), 106-111.
CODEN: JJMDAT. ISSN: 0021-5120.
FILE SEGMENT: BR; OLD
LANGUAGE: Unavailable

L8 ANSWER 21 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1978:11947 BIOSIS
DOCUMENT NUMBER: BR14:11947
TITLE: INTRA DUCTAL ACTIVATION OF ZYMOGENS OF CHYMOTRYPSIN **CARBOXY PEPTIDASE A** AND ELASTASE IN PATIENTS WITH **PANCREATITIS**.
AUTHOR(S): RINDERKNECHT H; RENNER I G
SOURCE: IRCS Libr. Compend., (1976) 4 (10), 463.
CODEN: IRLCAW. ISSN: 0305-2559.
FILE SEGMENT: BR; OLD
LANGUAGE: Unavailable

L8 ANSWER 22 OF 24 MEDLINE DUPLICATE 6
ACCESSION NUMBER: 77001994 MEDLINE
DOCUMENT NUMBER: 77001994
TITLE: [Bisalbuminaemia in **pancreatitis**: structural modifications of human serum albumin by proteolytic enzymes of the pancreas (author's transl)].
Bisalbuminemies au cours des **pancreatites**: modifications structurales de la serumalbumine humaine par les enzymes proteolytiques du pancreas.
AUTHOR: Rousseaux J; Debeaumont D; Scharfman A; Pommelet P; Dautrevaux M; Biserte G
SOURCE: CLINICA CHIMICA ACTA, (1976 Aug 16) 71 (1) 35-46.
Journal code: DCC. ISSN: 0009-8981.
PUB. COUNTRY: Netherlands
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: French
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197701
AB Bisalbuminaemia in **pancreatitis** is a transient abnormality related to the presence, on electrophoresis of the serum, of a fast-moving albumin; this abnormal form is also found, in large amounts, in the ascitic or pleural effusions of the patients. Experiments reported here indicate clearly that the fast albumin can be produced by a degradation of normal serum albumin by the proteolytic enzymes of the pancreas (chymotrypsin or elastase in association with **carboxypeptidases A** and B).
Stuctural analysis of the isolated fast albumin of the patients

shows that the C-terminal end of the molecule is different from normal serum albumin, which can be understood by a limited enzymatic degradation by chymotrypsin or elastase followed by the action of carboxypeptidases. The discovery of bisalbuminaemia in a patient affected by **pancreatitis** is suspicious of the presence of an ascitic or pleural effusion and of a pancreatic pseudo-cyst with a fistula emerging in the effusion.

L8 ANSWER 23 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1976:66756 BIOSIS
DOCUMENT NUMBER: BR12:66756
TITLE: SERUM **CARBOXY PEPTIDASE A** ACTIVITY AND PANCREATIC EXOCRINE FUNCTION.
AUTHOR(S): FUJII S; YAMAGATA S; TANAKA K; WADA M; OKUDA K
SOURCE: Clin. Chem. (Winston-Salem, N. C.), (1975) 21 (7), 949.
CODEN: CLCHAU. ISSN: 0009-9147.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: Unavailable

L8 ANSWER 24 OF 24 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1976:89211 BIOSIS
DOCUMENT NUMBER: BR12:89211
TITLE: SERUM **CARBOXY PEPTIDASE A** ACTIVITY AND ITS CLINICAL APPLICATION.
AUTHOR(S): FUJII S; YAMAGATA S; NISHIMOTO N; TANAKA K; YAMAMOTO M; SEKI J; WADA M; OKUDA K
SOURCE: Ikagaku Shimpojumu, (1974 (RECD 1976)) 14, 129-130.
CODEN: IKSHAX.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: Unavailable

FILE 'USPATFULL' ENTERED AT 12:10:30 ON 05 MAY 2000
L9 25 SEA ABB=ON PLU=ON L4 AND PANCREATIT?

FILE 'REGISTRY' ENTERED AT 12:10:53 ON 05 MAY 2000
E BENZYLSUCCINIC ACID/CN 5
L10 1 SEA ABB=ON PLU=ON "BENZYLSUCCINIC ACID"/CN
E POTATO CARBOXYPEPTIDASE INHIBITOR/CN 5
L11 1 SEA ABB=ON PLU=ON "POTATO CARBOXYPEPTIDASE INHIBITOR"/CN
E CLOSTRIPAIN/CN 5
L12 2 SEA ABB=ON PLU=ON CLOSTRIPAIN ?/CN
L13 4 SEA ABB=ON PLU=ON L10 OR L11 OR L12

FILE 'USPATFULL' ENTERED AT 12:11:39 ON 05 MAY 2000
L14 0 SEA ABB=ON PLU=ON L9 AND (L13 OR BENZYLSUCCINIC OR (BZ

OR BENZYL)(W)SUCCINIC OR POTATO CARBOXY? OR CLOSTRIPAIN)
L15 18 SEA ABB=ON PLU=ON L4(L)PANCREATIT?

L15 ANSWER 1 OF 18 USPATFULL
ACCESSION NUMBER: 1998:51190 USPATFULL
TITLE: High buffer-containing enteric coating digestive enzyme bile acid compositions and method of treating digestive disorders therewith
INVENTOR(S): Sipos, Tibor, Lebanon, NJ, United States
PATENT ASSIGNEE(S): Digestive Care Inc., Lebanon, NJ, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5750104	19980512
APPLICATION INFO.:	US 1996-654900	19960529 (8)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Kulkosky, Peter F.
LEGAL REPRESENTATIVE: Balogh, Imre
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
LINE COUNT: 947
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are gastric acid-resistant polymer-coated buffered digestive enzymes/bile acid compositions, process for their preparations and methods of treating digestive disorders and cystic fibrosis by administering said compositions to a mammal in need of such treatment.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/094.210
NCL NCLM: 424/094.210

L15 ANSWER 2 OF 18 USPATFULL
ACCESSION NUMBER: 97:3526 USPATFULL
TITLE: Plasma carboxypeptidase
INVENTOR(S): Drayna, Dennis T., San Francisco, CA, United States
Eaton, Dan L., San Rafael, CA, United States
PATENT ASSIGNEE(S): Genentech, Inc., South San Francisco, CA, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5593674	19970114
APPLICATION INFO.:	US 1995-430787	19950427 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1994-277540, filed on 19 Jul 1994, now patented, Pat. No. US 5474901 which is a division of Ser. No. US 1993-167727, filed

on 15 Dec 1993, now patented, Pat. No. US 5364934 which is a continuation of Ser. No. US 1992-959944, filed on 14 Oct 1992, now abandoned which is a division of Ser. No. US 1991-649591, filed on 1 Feb 1991, now patented, Pat. No. US 5206161

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Sayala, Chhaya D.
LEGAL REPRESENTATIVE: Kubinec, Jeffrey S.
NUMBER OF CLAIMS: 1
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 2565
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel polypeptide, designated plasma carboxypeptidase B (PCPB), has been purified from human plasma. It has been cloned from a human liver cDNA library using PCR amplification. Provided herein is nucleic acid encoding PCPB useful in diagnostics and in the recombinant preparation of PCPB. PCPB is used in the preparation and purification of antibodies thereto, in the purification of plasminogen, in the inhibition of plasminogen activation by t-PA in the presence of fibrinogen, and in diagnostic assays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/094.630
INCLS: 435/212.000; 435/069.100
NCL NCLM: 424/094.630
NCLS: 435/069.100; 435/212.000

L15 ANSWER 3 OF 18 USPATFULL
ACCESSION NUMBER: 96:108678 USPATFULL
TITLE: Compositions of digestive enzymes and salts of bile acids and process for preparation thereof
INVENTOR(S): Sipos, Tibor, Lebanon, NJ, United States
PATENT ASSIGNEE(S): Digestive Care Inc., Lebanon, NJ, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5578304	19961126
APPLICATION INFO.:	US 1995-434953	19950504 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-129250, filed on 29 Sep 1993, now patented, Pat. No. US 5460812 which is a continuation-in-part of Ser. No. US 1993-104655, filed on 11 Aug 1993, now patented, Pat. No. US 5324514 which is a division of Ser. No. US 1992-901734, filed on 22 Jun 1992, now patented, Pat. No. US 5260074
DOCUMENT TYPE: Utility

PRIMARY EXAMINER: Marx, Irene
ASSISTANT EXAMINER: Larson, Kristin
LEGAL REPRESENTATIVE: Balogh, Imre
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
LINE COUNT: 1113
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are gastric acid-resistant polymer-coated, buffered digestive enzymes/ursodeoxycholate compositions, process for their preparations and methods for treating digestive disorders, pancreatic enzyme insufficiency, impaired liver function, and cystic fibrosis for regulating the absorption of dietary iron and cholesterol, and for dissolving gallstones by administering the compositions to a mammal in need of such treatment.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/094.100
INCLS: 424/094.200; 424/094.600; 424/094.640; 424/480.000; 424/490.000; 424/497.000
NCL NCLM: 424/094.100
NCLS: 424/094.200; 424/094.600; 424/094.640; 424/480.000; 424/490.000; 424/494.000

L15 ANSWER 4 OF 18 USPATFULL
ACCESSION NUMBER: 96:24845 USPATFULL
TITLE: Determination of potassium ions in fluids
INVENTOR(S): Berry, Michael N., Eden Hills, Australia
Town, Michael-Harold, Oberhausen, Germany, Federal Republic of
Kresse, Georg-Burkhard, Penzberg, Germany, Federal Republic of
Herrmann, Uwe, Bernried, Germany, Federal Republic of
PATENT ASSIGNEE(S): Boehringer Mannheim GmbH, Australia (non-U.S. corporation)
The Flinder University of South Australia, Australia (non-U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5501958	19960326
APPLICATION INFO.:	US 1994-308823	19940919 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1992-958534, filed on 8 Oct 1992, now abandoned which is a continuation of Ser. No. US 1991-804820, filed on 27 Nov 1991, now abandoned which is a division of Ser. No. US 1991-696326, filed on 30 Apr 1991, now abandoned which is a continuation of Ser. No. US 1989-302799, filed on 19 Jan 1989, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1987-1365	19870410
	AU 1987-2311	19870605

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Wityshyn, Michael G.
ASSISTANT EXAMINER: Leary, Louise N.
LEGAL REPRESENTATIVE: Felfe & Lynch
NUMBER OF CLAIMS: 77
EXEMPLARY CLAIM: 1
LINE COUNT: 1377
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process and a reagent for the determination of ions in fluids, wherein the influence of these ions on the activity of an enzyme is measured. The ions for example are sodium, potassium, calcium, magnesium, manganese, lithium, lead, zinc, copper, iron or other heavy metals or non-metallic ions comprising chloride, bicarbonate, protons, ammonium and substances that give rise to ammonium. The enzymes which are used may be a transferase, a hydrolase, an oxidoreductase or a lyase. An essential feature is a method to exclude interferences by ions by masking the interfering ions with a binding agent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/018.000
INCLS: 435/004.000; 435/025.000; 435/026.000; 435/014.000; 436/074.000; 436/079.000; 436/501.000
NCL NCLM: 435/018.000
NCLS: 435/004.000; 435/014.000; 435/025.000; 435/026.000; 436/074.000; 436/079.000; 436/501.000

L15 ANSWER 5 OF 18 USPATFULL
ACCESSION NUMBER: 95:110350 USPATFULL
TITLE: Antibodies to human carboxypeptidase B and methods of use thereof
INVENTOR(S): Drayna, Dennis T., San Francisco, CA, United States
Eaton, Dan L., San Rafael, CA, United States
PATENT ASSIGNEE(S): Genentech, Inc., South San Francisco, CA, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5474901	19951212
APPLICATION INFO.:	US 1994-277540	19940719 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1993-167727, filed on 15 Dec 1993, now patented, Pat. No. US 5364934 which is a continuation of Ser. No. US 1992-959944,

filed on 14 Oct 1992, now abandoned which is a division of Ser. No. US 1991-649591, filed on 1 Feb 1991, now patented, Pat. No. US 5206161
DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Scheiner, Toni R.
ASSISTANT EXAMINER: Duffy, Patricia A.
LEGAL REPRESENTATIVE: Hasak, Janet E.
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 2530
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel polypeptide, designated plasma carboxypeptidase B (PCPB), has been purified from human plasma. It has been cloned from a human liver cDNA library using PCR amplification. Provided herein is nucleic acid encoding PCPB useful in diagnostics and in the recombinant preparation of PCPB. PCPB is used in the preparation and purification of antibodies thereto, in the purification of plasminogen, in the inhibition of plasminogen activation by t-PA in the presence of fibrinogen, and in diagnostic assays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/007.400
INCLS: 435/007.920; 436/161.000; 436/518.000; 436/824.000; 530/387.100
NCL NCLM: 435/007.400
NCLS: 435/007.920; 436/161.000; 436/518.000; 436/824.000; 530/387.100

L15 ANSWER 6 OF 18 USPATFULL
ACCESSION NUMBER: 95:94680 USPATFULL
TITLE: Compositions of digestive enzymes and salts of bile acids and process for preparation thereof
INVENTOR(S): Sipos, Tibor, Lebanon, NJ, United States
PATENT ASSIGNEE(S): Digestive Care Inc., Lebanon, NJ, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5460812	19951024
APPLICATION INFO.:	US 1993-129250	19930929 (8)

DISCLAIMER DATE: 20101109
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-104655, filed on 11 Aug 1993, now patented, Pat. No. US 5324514 which is a division of Ser. No. US 1992-901734, filed on 22 Jun 1992, now patented, Pat. No. US 5260074
DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Knode, Marion C.
Searcher : Shears 308-4994

ASSISTANT EXAMINER: Larson, Kristin
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
LINE COUNT: 841
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are gastric acid-resistant polymer-coated buffered digestive enzymes/ursodeoxycholate compositions, process for their preparations and methods of treating digestive disorders, pancreatic enzyme insufficiency, impaired liver function, cystic fibrosis, for regulating the absorption of dietary iron and cholesterol, and for dissolving gallstones by administering the compositions to a mammal in need of such treatment.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/094.100
INCLS: 424/094.200; 424/094.600; 424/094.640; 424/480.000; 424/490.000; 424/497.000
NCL NCLM: 424/094.100
NCLS: 424/094.200; 424/094.600; 424/094.640; 424/480.000; 424/490.000; 424/497.000

L15 ANSWER 7 OF 18 USPATFULL
ACCESSION NUMBER: 95:36294 USPATFULL
TITLE: Determination of ions in fluids
INVENTOR(S): Berry, Michael N., Eden Hills, Australia
Town, Michael-Harold, Oberhausen, Germany, Federal Republic of
Kresse, Georg-Burkhard, Penzberg, Germany, Federal Republic of
Herrmann, Uwe, Bernried, Germany, Federal Republic of
PATENT ASSIGNEE(S): Boehringer Mannheim GmbH, Mannheim, Germany, Federal Republic of (non-U.S. corporation)
The Flinders University of South Australia, South Australia, Australia (non-U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5409814	19950425
APPLICATION INFO.:	US 1992-907735	19920622 (7)

RELATED APPLN. INFO.: Division of Ser. No. US 1991-696326, filed on 30 Apr 1991, now abandoned which is a continuation of Ser. No. US 1989-302799, filed on 19 Jan 1989, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1987-1365	19870410
	AU 1987-2311	19870605

Searcher : Shears 308-4994

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Russel, Jeffrey E.
ASSISTANT EXAMINER: Gitomer, Ralph
LEGAL REPRESENTATIVE: Felfe & Lynch
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
LINE COUNT: 1137
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process and a reagent for the determination of ions in fluids, wherein the influence of these ions on the activity of an enzyme is measured. The ions for example are sodium, potassium, calcium, magnesium, manganese, lithium, lead, zinc, copper, iron or other heavy metals or non-metallic ions comprising chloride, bicarbonate, protons, ammonium and substances that give rise to ammonium. The enzymes which are used may be a transferase, a hydrolase, an oxidoreductase or a lyase. An essential feature is a method to exclude interferences by ions by masking the interfering ions with a binding agent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/022.000
INCLS: 435/004.000; 435/018.000; 435/025.000; 435/962.000
NCL NCLM: 435/022.000
NCLS: 435/004.000; 435/018.000; 435/025.000; 435/962.000

L15 ANSWER 8 OF 18 USPATFULL
ACCESSION NUMBER: 95:7812 USPATFULL
TITLE: Determination of sodium ions in fluids
INVENTOR(S): Berry, Michael N., Eden Hills, Australia
Town, Michael-Harold, Oberhausen, Germany, Federal Republic of
Kresse, Georg-Burkhard, Penzberg, Germany, Federal Republic of
Hermann, Uwe, Bernried, Germany, Federal Republic of
PATENT ASSIGNEE(S): Boehringer Mannheim, GmbH, Mannheim, Germany, Federal Republic of (non-U.S. corporation)
The Flinders University of South Australia, South Australia, Australia (non-U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5384247	19950124
APPLICATION INFO.:	US 1992-907736	19920622 (7)

RELATED APPLN. INFO.: Division of Ser. No. US 1991-696326, filed on 30 Apr 1991, now abandoned which is a continuation of Ser. No. US 1989-302799, filed on 19 Jan 1989, now abandoned

Searcher : Shears 308-4994

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1987-1365	19870410
	AU 1987-2311	19870605

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Wityshyn, Michael G.
ASSISTANT EXAMINER: Gitomer, Ralph
LEGAL REPRESENTATIVE: Felfe & Lynch
NUMBER OF CLAIMS: 58
EXEMPLARY CLAIM: 1
LINE COUNT: 1274
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process and a reagent for the determination of ions in fluids, wherein the influence of these ions on the activity of an enzyme is measured. The ions for example are sodium, potassium, calcium, magnesium, manganese, lithium, lead, zinc, copper, iron or other heavy metals or non-metallic ions comprising chloride, bicarbonate, protons, ammonium and substances that give rise to ammonium. The enzymes which are used may be a transferase, a hydrolase, an oxidoreductase or a lyase. An essential feature is a method to exclude interferences by ions by masking the interfering ions with a binding agent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/022.000
INCLS: 435/007.700; 435/007.720; 435/018.000; 435/025.000; 435/962.000
NCL NCLM: 435/022.000
NCLS: 435/007.700; 435/007.720; 435/018.000; 435/025.000; 435/962.000

L15 ANSWER 9 OF 18 USPATFULL
ACCESSION NUMBER: 95:7811 USPATFULL
TITLE: Determination of ions in fluids by a process involving displacement of indicator ions
INVENTOR(S): Berry, Michael N., Eden Hills, Australia
Town, Michael-Harold, Oberhausen, Germany, Federal Republic of
Kresse, Georg-Burkhard, Penzberg, Germany, Federal Republic of
Herrmann, Uwe, Bernried, Germany, Federal Republic of
PATENT ASSIGNEE(S): Boehringer Mannheim GmbH, Mannheim, Germany, Federal Republic of (non-U.S. corporation)
The Flinders University of South Australia, South Australia, Australia (non-U.S. corporation)

	NUMBER	DATE

Searcher : Shears 308-4994

PATENT INFORMATION: US 5384246 19950124
APPLICATION INFO.: US 1992-907732 19920622 (7)
RELATED APPLN. INFO.: Division of Ser. No. US 1991-696326, filed on 30 Apr 1991, now abandoned which is a continuation of Ser. No. US 1989-302799, filed on 19 Jan 1989, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1987-1365	19870410
	AU 1987-2311	19870605

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Wityshyn, Michael G.
ASSISTANT EXAMINER: Gitomer, Ralph
LEGAL REPRESENTATIVE: Felfe & Lynch
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
LINE COUNT: 1103
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process and a reagent for the determination of ions in fluids, wherein the influence of these ions on the activity of an enzyme is measured. The ions for example are sodium, potassium, calcium, magnesium, manganese, lithium, lead, zinc, copper, iron or other heavy metals or non-metallic ions comprising chloride, bicarbonate, protons, ammonium and substances that give rise to ammonium. The enzymes which are used may be a transferase, a hydrolase, an oxidoreductase or a lyase. An essential feature is a method to exclude interferences by ions by masking the interfering ions with a binding agent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/022.000
INCLS: 435/007.700; 435/007.720; 435/018.000; 435/025.000; 435/962.000
NCL NCLM: 435/022.000
NCLS: 435/007.700; 435/007.720; 435/018.000; 435/025.000; 435/962.000

L15 ANSWER 10 OF 18 USPATFULL
ACCESSION NUMBER: 95:3767 USPATFULL
TITLE: Enzymatic determination of analyte ions in fluids by optimizing measurement levels
INVENTOR(S): Berry, Michael N., Eden Hills, Australia
Town, Michael-Harold, Oberhausen, Germany, Federal Republic of
Kresse, Georg-Burkhard, Penzberg, Germany, Federal Republic of
Herrmann, Uwe, Bernried, Germany, Federal Republic of
Searcher : Shears 308-4994

PATENT ASSIGNEE(S): Boehringer Mannheim GmbH, Mannheim, Germany, Federal Republic of (non-U.S. corporation)
The Flinders University of South Australia, South Australia, Australia (non-U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5380649	19950110
APPLICATION INFO.:	US 1992-907731	19920622 (7)

RELATED APPLN. INFO.: Division of Ser. No. US 1991-696326, filed on 30 Apr 1991, now abandoned which is a continuation of Ser. No. US 1989-302799, filed on 19 Jan 1989, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1987-1365	19870410
	AU 1987-2311	19870605

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Witshyn, Michael G.
ASSISTANT EXAMINER: Gitomer, Ralph
LEGAL REPRESENTATIVE: Felfe & Lynch
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
LINE COUNT: 1083
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process and a reagent for the determination of ions in fluids, wherein the influence of these ions on the activity of an enzyme is measured. The ions for example are sodium, potassium, calcium, magnesium, manganese, lithium, lead, zinc, copper, iron or other heavy metals or non-metallic ions comprising chloride, bicarbonate, protons, ammonium and substances that give rise to ammonium. The enzymes which are used may be a transferase, a hydrolase, an oxidoreductase or a lyase. An essential feature is a method to exclude interferences by ions by masking the interfering ions with a binding agent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/022.000
INCLS: 435/007.700; 435/007.720; 435/962.000; 435/018.000; 435/025.000
NCL NCLM: 435/022.000
NCLS: 435/007.700; 435/007.720; 435/018.000; 435/025.000; 435/962.000

L15 ANSWER 11 OF 18 USPATFULL
ACCESSION NUMBER: 94:99987 USPATFULL
TITLE: Plasma carboxypeptidase
INVENTOR(S): Drayna, Dennis T., San Francisco, CA, United

Searcher : Shears 308-4994

States
Eaton, Dan L., San Rafael, CA, United States
PATENT ASSIGNEE(S): Genentech, Inc., South San Francisco, CA, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5364934	19941115
APPLICATION INFO.:	US 1993-167727	19931215 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1992-959944, filed on 14 Oct 1992, now abandoned which is a division of Ser. No. US 1991-649591, filed on 1 Feb 1991, now patented, Pat. No. US 5201161, issued on 27 Apr 1993
DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Wax, Robert A.
ASSISTANT EXAMINER: Grimes, Eric
LEGAL REPRESENTATIVE: Hasak, Janet E.
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 2485
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A novel polypeptide, designated plasma carboxypeptidase B (PCPB), has been purified from human plasma. It has been cloned from a human liver cDNA library using PCR amplification. Provided herein is nucleic acid encoding PCPB useful in diagnostics and in the recombinant preparation of PCPB. PCPB is used in the preparation and purification of antibodies thereto, in the purification of plasminogen, in the inhibition of plasminogen activation by t-PA in the presence of fibrinogen, and in diagnostic assays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 536/023.200
INCLS: 435/240.200; 435/252.300; 435/320.100
NCL NCLM: 536/023.200
NCLS: 435/252.300; 435/320.100; 435/369.000

L15 ANSWER 12 OF 18 USPATFULL
ACCESSION NUMBER: 94:55334 USPATFULL
TITLE: Compositions of digestive enzymes and salts of bile acids and process for preparation thereof
INVENTOR(S): Sipos, Tibor, Lebanon, NJ, United States
PATENT ASSIGNEE(S): Digestive Care Inc., Lebanon, NJ, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5324514	19940628

Searcher : Shears 308-4994

APPLICATION INFO.: US 1993-104655 19930811 (8)
DISCLAIMER DATE: 20100810
RELATED APPLN. INFO.: Division of Ser. No. US 1992-901734, filed on 22 Jun 1992, now patented, Pat. No. US 5260074
DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Robinson, Douglas W.
ASSISTANT EXAMINER: Larson, Kristin
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
LINE COUNT: 626
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are gastric acid-resistant polymer-coated digestive enzymes/ursodeoxycholate compositions, process for their preparations and methods of treating digestive disorders, treating impaired liver function, treating cystic fibrosis, regulating the absorption of dietary cholesterol, and for dissolving gallstones by administering the compositions to a mammal in need of such treatment.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/094.630
INCLS: 424/094.100; 424/094.600; 424/094.640; 424/094.650; 424/497.000
NCL NCLM: 424/094.630
NCLS: 424/094.100; 424/094.600; 424/094.640; 424/094.650; 424/497.000

L15 ANSWER 13 OF 18 USPATFULL
ACCESSION NUMBER: 94:30856 USPATFULL
TITLE: Preparation of gastric acid-resistant microspheres containing digestive enzymes and buffered-bile acids
INVENTOR(S): Sipos, Tibor, Lebanon, NJ, United States
PATENT ASSIGNEE(S): Digestive Care Inc., Lebanon, NJ, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5302400	19940412
APPLICATION INFO.:	US 1992-901758	19920622 (7)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Levy, Neil
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
LINE COUNT: 653
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are gastric acid-resistant polymer-coated digestive enzymes/buffered-bile acid compositions, process for their

preparations and methods of treating digestive disorders, impaired liver function, cystic fibrosis, regulating the absorption of dietary cholesterol, and for dissolving gallstones by administering said compositions to a mammal in need of such treatment.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/494.000
INCLS: 424/451.000; 424/497.000; 424/094.210; 424/094.600
NCL NCLM: 424/494.000
NCLS: 424/094.210; 424/094.600; 424/451.000; 424/497.000

L15 ANSWER 14 OF 18 USPATFULL
ACCESSION NUMBER: 93:93566 USPATFULL
TITLE: Compositions of digestive enzymes and salts of bile acids and process for preparation thereof
INVENTOR(S): Sipos, Tibor, Lebanon, NJ, United States
PATENT ASSIGNEE(S): Digestive Care Inc., Lebanon, NJ, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5260074	19931109
APPLICATION INFO.:	US 1992-901734	19920622 (7)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Robinson, Douglas W.
ASSISTANT EXAMINER: Larson, Kristin K.
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
LINE COUNT: 649
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are gastric acid-resistant polymer-coated digestive enzymes/ursodeoxycholate compositions, process for their preparations and methods of treating digestive disorders, impaired liver function, cystic fibrosis, regulating the absorption of dietary cholesterol, and for dissolving gallstones by administering the compositions to a mammal in need of such treatment.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/497.000
INCLS: 424/094.100; 424/094.200; 424/094.300; 424/094.600; 424/094.630; 424/490.000; 435/213.000
NCL NCLM: 424/497.000
NCLS: 424/094.100; 424/094.200; 424/094.300; 424/094.600; 424/094.630; 435/213.000

L15 ANSWER 15 OF 18 USPATFULL
ACCESSION NUMBER: 93:33415 USPATFULL
Searcher : Shears 308-4994

TITLE: Human plasma carboxypeptidase B
INVENTOR(S): Drayna, Dennis T., San Francisco, CA, United States
Eaton, Dan L., San Rafael, CA, United States
PATENT ASSIGNEE(S): Genentech, Inc., South San Francisco, CA, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 5206161	19930427
APPLICATION INFO.:	US 1991-649591	19910201 (7)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Naff, David M.
ASSISTANT EXAMINER: Weber, Jon
LEGAL REPRESENTATIVE: Hasak, Janet E.
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 2417
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A novel polypeptide, designated plasma carboxypeptidase B (PCPB), has been purified from human plasma. It has been cloned from a human liver cDNA library using PCR amplification. Provided herein is nucleic acid encoding PCPB useful in diagnostics and in the recombinant preparation of PCPB. PCPB is used in the preparation and purification of antibodies thereto, in the purification of plasminogen, in the inhibition of plasminogen activation by t-PA in the presence of fibrinogen, and in diagnostic assays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/212.000
INCLS: 435/069.100
NCL NCLM: 435/212.000
NCLS: 435/069.100

L15 ANSWER 16 OF 18 USPATFULL
ACCESSION NUMBER: 87:66866 USPATFULL
TITLE: Enzyme composition acting as a digestion promoter on various levels in the alimentary tract, and a method for facilitating digestion
INVENTOR(S): Hellgren, Lars G. I., Vastra Frolunda, Sweden
Mohr, Viggo, Trondheim, Norway
Vincent, Jan G., Stockholm, Sweden
PATENT ASSIGNEE(S): Pharmacia AB, Uppsala, Sweden (non-U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 4695457	19870922

Searcher : Shears 308-4994

	WO 8504809	19851107	
APPLICATION INFO.:	US 1985-829642	19851203	(6)
	WO 1985-SE187	19850424	
		19851203	PCT 371 date
		19851203	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	SE 1984-2238	19840424

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Brown, Johnnie R.
ASSISTANT EXAMINER: Rollins, John W.
LEGAL REPRESENTATIVE: Philpitt, Fred
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 658
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A pharmaceutical composition containing an effective amount of an enzyme preparation which is capable of promoting decomposition of food containing meat and/or adipose tissue and is produced from aquatic animals selected from the group consisting of animals of the order Euphausiaceae and animals of the genus Mallotus, said composition being useful as a digestion promoter in gastrointestinal fluids.

The invention comprises also a method for promoting degradation of food in gastrointestinal fluids by means of adding or administering said pharmaceutical composition.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/094.000
NCL NCLM: 424/094.630

L15 ANSWER 17 OF 18 USPATFULL
ACCESSION NUMBER: 84:24556 USPATFULL
TITLE: Pancreas specific protein systems
INVENTOR(S): Nerenberg, Samuel T., 17931 Wellbank La., Huntington Beach, CA, United States 92649

	NUMBER	DATE	
PATENT INFORMATION:	US 4446240	19840501	
APPLICATION INFO.:	US 1981-230298	19810130	(6)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Nucker, Christine M.
LEGAL REPRESENTATIVE: Fitch, Even, Tabin & Flannery
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1,12
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 3 Drawing Page(s)
Searcher : Shears 308-4994

LINE COUNT: 1007
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Pancreas specific protein systems, including Pan Ag purified antigen having molecular mass of about 2.25.times.10.sup.5 daltons and pancreas specific antibodies to such antigen, and methods for providing and utilizing such antigen and antibodies.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 436/542.000
INCLS: 260/112.000R; 436/544.000; 436/545.000; 436/804.000; 436/811.000
NCL NCLM: 436/542.000
NCLS: 435/188.000; 436/544.000; 436/545.000; 436/804.000; 436/811.000; 530/389.100; 530/391.300; 530/395.000; 530/415.000; 530/845.000

L15 ANSWER 18 OF 18 USPATFULL
ACCESSION NUMBER: 78:14155 USPATFULL
TITLE: Preparation of enteric coated digestive enzyme compositions
INVENTOR(S): Sipos, Tibor, Lebanon, NJ, United States
PATENT ASSIGNEE(S): Johnson & Johnson, New Brunswick, NJ, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 4079125	19780314
APPLICATION INFO.:	US 1976-744902	19761126 (5)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1975-585621, filed on 10 Jun 1975, now abandoned
DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Rosen, Sam
NUMBER OF CLAIMS: 30
EXEMPLARY CLAIM: 1
LINE COUNT: 1027
AB Improved enteric coated digestive enzyme-containing compositions which are capable of withstanding hours of exposure to gastric fluids while protecting the biological activity of the enzymes and thereafter releasing the digestive enzymes in their biologically active state within 5 to 30 minutes after being exposed to intestinal fluids, these compositions comprising (a) an enzyme concentrate in (b) a binder system comprising at least about 0.5 wt. %, preferably about 1 to about 10 wt. % (based on the weight of the binder system plus enzymes) of (i) a binder, preferably selected from the group consisting of polyvinylpyrrolidone, microcrystalline cellulose (Avicel), cellulose acetate phthalate, methylcellulose and alginic acid, and preferably (ii) from about 0.1 to about 10 wt. % of a stabilizer, preferably selected from the group consisting of calcium carbonate, polyvinylpyrrolidone,

cellulose acetate phthalate, methylcellulose, alginic acid, starch and modified starches, e.g., carboxymethyl starch (Primojel); and (c) from about 0.1% to about 30 wt. %, based on the weight of the total composite (enzyme plus binder system plus disintegrant) of a disintegrant, preferably selected from the group consisting of citric acid, sodium carbonate, sodium bicarbonate, calcium carbonate and other suitable carbonates, alginic acid, starch and modified starches, e.g., carboxymethyl starch (Primojel) are prepared by a process in which the presence of water is avoided and which includes the step of blending enzyme, binder and disintegrant in the presence of a selected inert solvent as well as the subsequent coating of the resulting enzyme/binder/disintegrant composite with from about 2.5% to about 10% by weight, based on the weight of the enzyme/binder/disintegrant composite, of a gastric juice insoluble, intestinal juice soluble, non-porous, pharmaceutically acceptable enteric coating polymer.

INCL INCLM: 424/032.000
INCLS: 424/031.000; 424/035.000; 424/078.000; 424/080.000; 424/094.000
NCL NCLM: 424/480.000
NCLS: 424/094.300; 424/094.600; 424/094.610; 424/094.630; 424/094.640; 424/094.660; 424/482.000; 424/489.000

FILE 'MEDLINE' ENTERED AT 12:14:47 ON 05 MAY 2000
L16 4873 SEA FILE=MEDLINE ABB=ON PLU=ON CARBOXYPEPTIDASES/CT
L19 283 SEA FILE=MEDLINE ABB=ON PLU=ON ("PANCREATITIS, ACUTE NECROTIZING"/CT OR "PANCREATITIS, ACUTE NECROTIZING: BL, BLOOD"/CT OR "PANCREATITIS, ACUTE NECROTIZING: CI, CHEMICALLY INDUCED"/CT OR "PANCREATITIS, ACUTE NECROTIZIN G: CL, CLASSIFICATION"/CT OR "PANCREATITIS, ACUTE NECROTIZING: CO, COMPLICATIONS"/CT OR "PANCREATITIS, ACUTE NECROTIZING: DI, DIAGNOSIS"/CT OR "PANCREATITIS, ACUTE NECROTIZING: DT, DRUG THERAPY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: EN, ENZYMOLOGY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: EP, EPIDEMIOLOGY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: ET, ETIOLOGY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: GE, GENETICS"/CT OR "PANCREATITIS, ACUTE NECROTIZING: IM, IMMUNOLOGY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: ME, METABOLISM"/CT OR "PANCREATITIS, ACUTE NECROTIZING: MI, MICROBIOLOGY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: MO, MORTALITY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: PA, PATHOLOGY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: PC, PREVENTION & CONTROL"/CT OR "PANCREATITIS, ACUTE NECROTIZING: PP, PHYSIOPATHOLOGY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: RA, RADIOGRAPHY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: RI, RADIONUCLIDE IMAGING"/CT OR "PANCREATITIS, ACUTE NECROTIZING: SU,

SURGERY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: TH, THERAPY"/CT OR "PANCREATITIS, ACUTE NECROTIZING: US, ULTRASONOGRAPHY"/CT)

L20 1 SEA FILE=MEDLINE ABB=ON PLU=ON L16 AND L19

L16 4873 SEA FILE=MEDLINE ABB=ON PLU=ON CARBOXYPEPTIDASES/CT
L17 23591 SEA FILE=MEDLINE ABB=ON PLU=ON PANCREATITIS/CT
L18 33 SEA FILE=MEDLINE ABB=ON PLU=ON L16 AND L17
L21 8 SEA FILE=MEDLINE ABB=ON PLU=ON L18 AND (DIAGNOSIS OR DIAGNOSTIC USE)/CT

=> s l20 or l21

L22 9 L20 OR L21

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L22 ANSWER 1 OF 9 MEDLINE
AN 1998364657 MEDLINE
TI The clinical value of human pancreas-specific protein procarboxypeptidase B as an indicator of necrosis in acute pancreatitis: comparison to CRP and LDH.
AU Rau B; Cebulla M; Uhl W; Schoenberg M H; Beger H G
SO PANCREAS, (1998 Aug) 17 (2) 134-9.
Journal code: PRS. ISSN: 0885-3177.
AB Early assessment of severity in acute pancreatitis (AP) has a major impact on further treatment. Previous studies have shown that human pancreas-specific protein (hPASP)/procarboxypeptidase B (PCPB) is a new diagnostic and prognostic marker in AP. In the present study we focused on the prognostic properties of this parameter and analyzed the clinical value of hPASP in discriminating edematous from necrotizing AP. The results were compared to those for C-reactive protein (CRP) and lactate dehydrogenase (LDH). A total of 70 patients was enrolled in this prospective study. Based on contrast-enhanced computed tomography or intraoperative results, 39 patients (27 male, 12 female; median age, 42 years; median Ranson score, 6) suffered from necrotizing pancreatitis (NP) and 31 patients (12 male, 19 female; median age, 57; median Ranson score, 1.5) from acute interstitial-edematous pancreatitis (AIP). Serum concentrations of hPASP/PCPB, CRP, and LDH were measured at 24-h intervals over 14 days after admission by a radioimmunoassay (upper normal value, 60 ng/ ml), a lasernephelometric assay (upper normal value, 4 mg/L), and an enzymekinetic method (upper normal value, 240 U/L), respectively. During the overall observation period concentrations of hPASP/PCPB, CRP, and LDH were significantly higher in patients with NP compared to those with AIP. Based on receiver operating characteristics, the best cutoff levels for predicting NP were >200 ng/ml for hPASP/PCPB, >140 mg/L for CRP, and >290 U/L for

LDH. Discrimination between AIP and NP was best on day 3 for both hPASP/PCPB (sensitivity, 91%; specificity, 64%; accuracy, 79%) and CRP (sensitivity, 83%; specificity, 84%; accuracy, 83%) and on day 5 of AP for LDH (sensitivity, 88%; specificity, 100%; accuracy, 91%). The overall accuracy in differentiating AIP from NP within the first 4 days after onset of symptoms was 74% for hPASP/PCPB, 75% for CRP, and 76% for LDH. None of the parameters correlated with the extent of necrosis or the etiology of AP. hPASP/PCPB provides good discrimination between AIP and NP at an early stage of the disease, with results comparable to those for CRP and LDH. Although hPASP/PCPB is both disease specific and predictive for necrosis, the clinical use of this test in its present form is limited due to drawbacks in terms of test performance and cost factors.

L22 ANSWER 2 OF 9 MEDLINE
AN 1998166773 MEDLINE
TI CAPAP in acute pancreatitis: just another marker or real progress? [comment].
AU Buchler M W; Uhl W; Andren-Sandberg A
SO GUT, (1998 Jan) 42 (1) 8-9.
Journal code: FVT. ISSN: 0017-5749.

L22 ANSWER 3 OF 9 MEDLINE
AN 95350124 MEDLINE
TI "Human pancreas-specific protein" (procarboxypeptidase B): a valuable marker in pancreatitis?.
AU Printz H; Siegmund H; Wojte C; Schafer C; Hesse H; Rothmund M; Goke B
SO PANCREAS, (1995 Apr) 10 (3) 222-30.
Journal code: PRS. ISSN: 0885-3177.
AB Human pancreas-specific protein (PASP) has been characterized previously as a serum marker for pancreatitis. It was then identified as pancreatic procarboxypeptidase B (PCB). The aim of the present study was to verify the usefulness of PASP (PCB) as a serum marker in patients with acute (n = 20) and chronic (n = 12) pancreatitis and in those following endoscopic retrograde cholangiopancreaticography (ERCP) (n = 44). Serum PASP values were analyzed by radioimmunoassay, with a range of normal values between 15 and 111 ng/ml. Between April 1992 and September 1992, 20 subjects (19-86 years of age) with acute pancreatitis (alcoholic, 8; biliary, 8; other, 4) were studied. We found edematous pancreatitis in 17 cases and severe hemorrhagic pancreatitis in three cases. At admission, peak levels of PASP (average value, 1,976 +/- 329 ng/ml), pancreatic isoamylase (942 +/- 151 U/L) and lipase (2,946 +/- 534 U/L) were detected in 15 of 20, 16 of 20, and 12 of 20 cases, respectively. The etiology of the pancreatitis had no influence on the PASP values. Furthermore, 10 patients with alcoholic and two patients with nonalcoholic chronic pancreatitis (29-67 years of age) were studied. The average peak level of PASP was 1,229 +/- 434

ng/ml. In this group, PASP paralleled the time course of amylase and lipase. Maximal PASP, amylase, and lipase levels were found in 11 of 12, nine of 12, and five of 12 patients, respectively, on the day of admission. ERCP was performed in 44 patients (36-87 years of age), demonstrating common bile duct stones in 16 and bile or pancreatic ductal tumors in 15 cases.(ABSTRACT TRUNCATED AT 250 WORDS)

L22 ANSWER 4 OF 9 MEDLINE
AN 94244873 MEDLINE
TI Human pancreas-specific protein/procarboxypeptidase B: a useful serum marker of acute pancreatitis.
AU Pezzilli R; Billi P; Plat`e L; Bongiovanni F; Morselli Labate A M; Miglioli M
SO DIGESTION, (1994) 55 (2) 73-7.
Journal code: E9A. ISSN: 0012-2823.
AB The aim of this study was to evaluate the serum behavior of human pancreas-specific protein/procarboxypeptidase B (hPASP/PCPB) in the early phases of acute pancreatitis, and to calculate its sensitivity and specificity in comparison with those of serum amylase and lipase in the diagnosis of this illness. Twenty-six acute pancreatitis patients were studied; the pancreatitis was of biliary origin in 11, due to alcohol abuse in 8, and due to other causes in 7. Sixteen patients had mild pancreatitis and 10 the severe form of the disease. Thirty-one patients with nonpancreatic acute digestive diseases were also studied. Serum concentrations of hPASP/PCPB, amylase and lipase were determined in all subjects on admission to the study as well as daily for the following 5 days in acute pancreatitis patients. All patients with acute pancreatitis had abnormally high serum hPASP/PCPB, amylase and lipase concentrations on the first day of admission. On the sixth day of the disease, 76% of acute pancreatitis patients had abnormally high serum concentrations of hPASP/PCPB, whereas only 48% ($p < 0.05$) had elevated serum amylase and lipase. No differences in serum levels of hPASP/PCPB, amylase or lipase were found between patients with alcoholic pancreatitis and those with other etiological forms of the disease, or between those with mild and severe forms of pancreatitis. The specificity of the three serum pancreatic protein assays, calculated on the 31 patients with nonpancreatic acute digestive diseases, was 90% for both hPASP/PCPB and lipase, 75% for amylase.(ABSTRACT TRUNCATED AT 250 WORDS)

L22 ANSWER 5 OF 9 MEDLINE
AN 92129345 MEDLINE
TI Isolation of a cDNA encoding a human serum marker for acute pancreatitis. Identification of pancreas-specific protein as pancreatic procarboxypeptidase B.
AU Yamamoto K K; Pousette A; Chow P; Wilson H; el Shami S; French C K
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1992 Feb 5) 267 (4) 2575-81.
Journal code: HIV. ISSN: 0021-9258.

AB A human pancreas-specific protein (PASP), previously characterized as a serum marker for acute pancreatitis and pancreatic graft rejection, has been identified as pancreatic procarboxypeptidase B (PCPB). cDNAs encoding PASP/PCPB were isolated from a human pancreas cDNA library using a combination of nucleic acid hybridization screening and immunoscreening with antisera raised against native PASP. The deduced amino acid sequence of PASP/PCPB cDNA predicts the translation of a 416-amino acid preproenzyme with a 15-amino acid signal/leader peptide and a 95-amino acid activation peptide. The proenzyme portion of this protein has 76% identity with rat PCPB and 84% identity with bovine carboxypeptidase B. DNA and RNA blot analyses indicate that human PCPB mRNA (1,400 nucleotides) is transcribed from a single locus in the human genome in a tissue-specific fashion. N-terminal sequencing of native PASP and the specific immunoreactivity of bacterially expressed PASP/PCPB with native PASP antibodies confirm the identification of PASP as human pancreatic PCPB.

L22 ANSWER 6 OF 9 MEDLINE
AN 87211018 MEDLINE
TI Determination of carboxypeptidase A using N-acetyl-phenylalanyl-3-thiaphenylalanine as substrate: application to a direct serum assay.
AU Brown K S; Kingsbury W D; Hall N M; Dunn G L; Gilvarg C
SO ANALYTICAL BIOCHEMISTRY, (1987 Feb 15) 161 (1) 219-25.
Journal code: 4NK. ISSN: 0003-2697.
AB N-Acetyl-L-phenylalanyl-L-3-thiaphenylalanine has been shown to be a substrate for carboxypeptidase A. Hydrolysis of the compound obeys Michaelis-Menten kinetics with a KM of 0.22 mM and a kcat of 6720 min-1 at 22 degrees C. A colorimetric assay, employing Ellman's reagent to detect the thiophenol released upon cleavage of the peptide, has been developed. The assay can be used for the direct determination of carboxypeptidase A in serum.

L22 ANSWER 7 OF 9 MEDLINE
AN 80230295 MEDLINE
TI New chemo-enzymatic methods for the diagnosis of pancreatitis.
AU Arima T; Kawai K; Nagashima H
SO NIPPON RINSHO. JAPANESE JOURNAL OF CLINICAL MEDICINE, (1980) 38 (1) 51-9. Ref: 66
Journal code: KIM. ISSN: 0047-1852.

L22 ANSWER 8 OF 9 MEDLINE
AN 80132920 MEDLINE
TI Pancreatic enzymes other than amylase.
AU Roth M
SO CLINICAL BIOCHEMISTRY, (1979 Dec) 12 (6) 272-4.
Journal code: DBV. ISSN: 0009-9120.

L22 ANSWER 9 OF 9 MEDLINE

AN 69084952 MEDLINE
TI [Chronic pancreatitis. Symptoms, laboratory diagnosis and conservative treatment].
Chronische Pankreatiis. Symptomatologe, Laboratoriumsdiagnostik und konservative Therapie.
AU Rick W
SO CHIRURG, (1968 Jul) 39 (7) 301-6.
Journal code: D5U. ISSN: 0009-4722.

FILE 'HOME' ENTERED AT 12:18:38 ON 05 MAY 2000